



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BB

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,755	03/03/2004	Takayuki Yamano	249297US3	2901
22850	7590	12/27/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BONK, TERESA	
			ART UNIT	PAPER NUMBER
			3725	
DATE MAILED: 12/27/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/790,755	YAMANO ET AL.	
	Examiner	Art Unit	
	Teresa M. Bonk	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-2, 4-5 and 7 is/are rejected.
- 7) Claim(s) 3 and 6 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu (US Patent 5,544,5170). Shimizu discloses a method of forming a metal sheet having a punch (5) and a die (redrawing die 3 and ironing die 4) wherein two clearances, CL2 (C₁) and CL1 (C₂), are formed at sites between the punch and the die and can satisfy the following expressions:

$0.8 \times t \leq CL1 \leq 1.2 \times t$; Column 4, lines 19-20, “clearance C₂, between the ironing die 4 and the punch 5 should appropriately be in a range of $0.8 \times T_0$ to $0.3 \times T_0$.”

$CL2 \geq CL1 + t$; Column 6, line 8, “C₁ to range from 0.8 to 1.4 times of T₀”

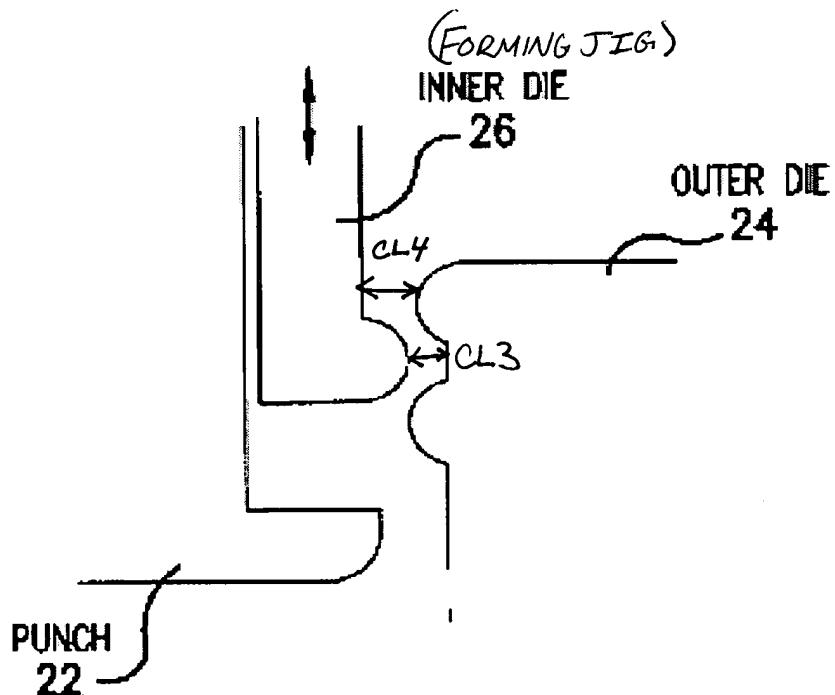
Also see Figure 1.

It is noted that claim 1 is a process-by-product claim. The reference meets the structure stated in claim 1; therefore, the process limitations have not been given patentable weight, e.g. formed immediately after the initial stage or formed in the initial stage. See MPEP §2113.

Based on the broadest scope of the applicant’s specifications, the examiner has taken the broadest reasonable interpretation of the claimed subject matter, e.g. “a site.”

Art Unit: 3725

2. Claims 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyauchi et al. (PGPUB 2002/0083754). Miyauchi et al. discloses a process for forming a metal sheet having a punch (22), a die (outer die 24), a forming jig (inner die 26) which moves in synchronism with the die while keeping a relative position to the die during forming, and forms a inclined vertical wall portion of the metal sheet (See Figure 1B), wherein the forming jig, a clearance CL4 between the forming jig and the die in the vicinity of a die shoulder of the die is set as to be wider than a clearance CL3 between the forming jig and the die in a forming area other than the vicinity of the die shoulder (See Figures 3).



Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Miyauchi et al. Shimizu discloses the invention substantially except for a forming which moves in synchronism with the die while keeping a relative position to the die during forming, and forms a inclined vertical wall portion of the metal sheet wherein the forming jig, a clearance CL4 between the forming jig and the die in the vicinity of a die shoulder of the die is set as to be wider than a clearance CL3 between the forming jig and the die in a forming area other than the vicinity of the die shoulder.

Miyauchi et al. discloses a process for forming a work material having a punch (22), a die (outer die 24), a forming jig (inner die 26) which moves in synchronism with the die while keeping a relative position to the die during forming, and forms a inclined vertical wall portion of the metal sheet (See Figure 1B), wherein the forming jig, a clearance CL4 between the

forming jig and the die in the vicinity of a die shoulder of the die is set as to be wider than a clearance CL3 between the forming jig and the die in a forming area other than the vicinity of the die shoulder (See Figures 1B and 3).

Therefore, it would have been obvious to one of ordinary skill in the art to have a forming jig with appropriate clearances as taught by Miyauchi et al., since he states at Column 1, lines 147-52 that such a modification has been successful in achieving certain design goals.

Allowable Subject Matter

4. Claims 3 and 6 would be allowable if rewritten to overcome the rejections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and further show the state of the art:

US Patents: 4,612,695; 2,157,354; 4,346,580; 4,373,368; 5,647,242; 5,329,799; 6,196,043; 6,089,072; and 5,152,047

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa M. Bonk whose telephone number is (571) 272-1901. The examiner can normally be reached on M-F 7:30AM - 5PM with alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-9900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Teresa M. Bonk
Examiner
Art Unit 3725



DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700